Title (en)
VIDEO IMAGE ENCODING METHOD, VIDEO IMAGE DECODING METHOD AND RELATED DEVICES

Title (de)
VIDEOBILDCODIERUNGSVERFAHREN, VIDEOBILDDECODIERUNGSVERFAHREN UND ZUGEHÖRIGE VORRICHTUNGEN

Title (fr)
PROCÉDÉ DE CODAGE D'IMAGE VIDÉO, PROCÉDÉ DE DÉCODAGE D'IMAGE VIDÉO ET DISPOSITIFS ASSOCIÉS

Publication
EP 4300958 A4 20240605 (EN)

Application
EP 22770490 A 20220315

Priority
- CN 202110289642 A 20210317
- CN 2022080900 W 20220315

Abstract (en)
[origin: WO2022194137A1] Provided in the present application are a video image encoding method, a video image decoding method and related devices. The present application relates to the technical field of video or image compression based on artificial intelligence (AI), and particularly relates to the technical field of video compression based on a neural network. The decoding method comprises: performing probability estimation processing on input data by means of a neural network, so as to obtain a probability distribution of residual values of a plurality of samples comprised in a residual of the current image, wherein the input data at least comprises a residual of a reference image, and the reference image is a decoded image before the current image is decoded; performing arithmetic entropy decoding on a code stream on the basis of the probability distribution of the residual values of the plurality of samples comprised in the residual of the current image, so as to obtain first entropy decoding data, wherein the first entropy decoding data represents the residual of the current image; and obtaining a reconstructed sample value of the current image on the basis of the residual of the current image. By means of the present application, the efficiency and accuracy of encoding and decoding can be improved.

IPC 8 full level
H04N 19/137 (2014.01); G06N 3/04 (2023.01); G06N 3/045 (2023.01); G06N 3/08 (2023.01); G06N 3/084 (2023.01); H04N 19/61 (2014.01); H04N 19/90 (2014.01); H04N 19/91 (2014.01)

CPC (source: CN EP US)
G06N 3/04 (2013.01 - CN EP); G06N 3/045 (2023.01 - EP); G06N 3/08 (2013.01 - CN EP); G06N 3/084 (2013.01 - EP); H04N 19/124 (2014.11 - CN); H04N 19/13 (2014.11 - US); H04N 19/132 (2014.11 - US); H04N 19/172 (2014.11 - US); H04N 19/60 (2014.11 - CN); H04N 19/61 (2014.11 - EP); H04N 19/90 (2014.11 - EP); H04N 19/91 (2014.11 - EP US)

Citation (search report)
- [XA] US 2021014531 A1 20210114 - PFAFF JONATHAN [DE], et al
- [XA] EP 3562162 A1 20191030 - INTERDIGITAL VC HOLDINGS INC [US]
- See also references of WO 2022194137A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4300958 A1 20240103; EP 4300958 A4 20240605; CN 115118972 A 20220927; US 2024007637 A1 20240104; WO 2022194137 A1 20220922

DOCDB simple family (application)
EP 22770490 A 20220315; CN 202110289642 A 20210317; CN 2022080900 W 20220315; US 202318368683 A 20230915